

6. Cartridge Ejector.

(a.) Visually examine the cartridge ejector for the presence of lubrication (see 3.3.2.3).

(b.) Visually and manually examine the cartridge ejector for proper orientation and the correct fastening with the spring pin (see 3.3.2.3).

7. Operating Rod Assembly. Visually and manually examine the following characteristics to determine compliance with 3.3.2.4.

(a.) The firing pin is fastened to the assembly with a spring pin and moves freely.

(b.) The piston rod and piston extension rod is permanently riveted together.

(c.) Measure and record the circle described by the axis of the piston rod for conformance to drawing requirement (see paragraph 3.3.2.4).

8. Firing Pin. Using gage number 11826304 measure and record the firing pin protrusion to insure compliance with the drawing requirement (see 3.3.10).

9. Driving Spring Rod Assembly. Manually disassemble and assemble the driving spring rod assembly into the bolt and operating rod assembly in the receiver assembly to determine compliance with 3.3.2.6. Unlock and lock the driving spring rod assembly from and into position by disengaging and engaging a pin out of and into the key hole slot in the rear end of the bottom of the receiver assembly.

f. Feed Mechanism Group.

1. Cover Assembly. Visually and manually examine the following characteristics to determine compliance with 3.3.3.

(a.) Rollers, links, pawls and cams operate smoothly and freely.

(b.) The cover assembly is latched securely to the receiver assembly and holds both the cover assembly and the feed tray in operating position.

(c.) Insure that the accessory mounting rail on the feed cover complies with the requirements of MIL-STD-1913.

2. Feed Tray. Visually and manually examine the cover assembly and the feed tray for compliance with 3.3.4.

g. Bipod Assembly and Sling Ring.

1. Manually examine for secure retention of the bipod assembly and sling ring.

2. Compress both the left and right leg assemblies against the bipod hinge spring and fold and latch both leg assemblies into their respective notches on the receiver assembly complete. Ensure both legs are securely retained once stowed. Ensure that once deployed each leg assembly fully engages in their respective hinge notch.

3. Visually and manually ensure that the bipod hinge is free to rotate freely on the gas cylinder housing.

4.4.3 Testing. The conformance tests listed in this specification shall be performed on inspection lots as defined in 4.4.1. The sampling plans shall conform to the provisions of 4.4.2.a.

4.4.3.1 Headspace Testing. Each machine gun shall be tested for minimum and maximum headspace using the method specified in 4.5.1. Machine guns which fail to meet the requirements (see 3.3.9) shall be rejected. A failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2).

4.4.3.2 Trigger Pull Testing. Each machine gun shall be tested for trigger pull using the Methods of Inspection specified in 4.5.2. Failure of any machine gun to meet requirements (see 3.4.1) shall cause rejection of the machine gun. A failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2).

4.4.3.3 Firing Pin Protrusion. Each machine gun shall be tested for firing pin protrusion using the test methods specified in 4.5.3. Failure of any machine gun to meet requirements (see 3.3.10) shall cause rejection of the machine gun. A failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2).

4.4.3.4 High Pressure Resistance. Each machine gun barrel, bolt breech body assembly, and receiver body assembly for end item application shall be tested for high pressure resistance using the method in 4.5.4. All repair or spare parts shall be similarly tested. Failure to meet the requirements (see 3.4.2) shall cause rejection of the part. A failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2).

4.4.3.5 Functioning. Each machine gun shall be tested for function firing using the test method specified in 4.5.5. The cyclic firing rate for two positions of the gas regulator plug setting shall be measured for both the assigned and spare barrel. A machine gun shall be rejected if it does not achieve the cyclic rate requirements (see 3.4.3) or has a malfunction including loose parts. A failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2). The belt pull requirement shall be demonstrated concurrently with the function firing. The contractor shall test five machine guns from each inspection lot for the functioning test with the M4 Bandoer, using the test method specified in 4.5.5.1.

4.4.3.5.1 Rejected Machine Guns. Machine guns rejected because of malfunction, loose parts or failure to meet cyclic rate during the test shall be corrected by the contractor. A failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2). The machine guns shall be retested by repeating the firing procedures of paragraph 4.5.5. The machine guns shall operate without malfunction and shall meet the cyclic rate requirements.

4.4.3.6 Accuracy, Dispersion and Targeting. Each machine gun with its assigned and spare barrel shall be tested for the accuracy and dispersion requirements of paragraph 3.4.3.2 and the targeting requirements of 3.4.3.3 using the test method specified in 4.5.6. Failure to meet requirements (see 3.4.3.2 and 3.4.3.3) shall be cause to reject the machine gun. A failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2).

4.4.3.6.1 Rejected Machine Guns. Machine guns rejected because of failure to meet either the accuracy, dispersion or targeting requirements shall be corrected by the contractor. A failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2). Corrected machine guns shall be retested by repeating the accuracy, dispersion and targeting test twice. The accuracy, dispersion, and targeting requirements shall be met for both tests. Machine guns failing retest shall be rejected.

4.4.3.7 Endurance. One machine gun randomly selected by the Government from each inspection lot shall be tested for endurance in accordance with test method in 4.5.7. The first five endurance test lots shall consist of one month's production. When five successive lots meet the endurance requirements, as prescribed in 3.4.3.4, the frequency of testing shall be decreased to every other month's production. Under the decreased testing frequency, when five tested lots have met the endurance requirements, the frequency of testing shall be further decreased to one lot tested of each three lots produced. If rejection of a lot occurs at any time, a failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2), and the frequency of testing shall increase to the previous level successfully completed.

4.4.3.8 Interchangeability Testing.

4.4.3.8.1 Machine Guns. Ten machine guns, selected at random by the Government from each inspection lot shall be tested for interchangeability (see 3.4.3.6) using the test method specified in 4.5.8. Machine guns taken for interchangeability testing shall have been found satisfactory in all other examinations and tests. The first five interchange test lots shall each consist of one month's production. When five successive lots meet the interchange requirements the frequency of testing shall be decreased to every other month's production. Under the decreased testing frequency, when five tested lots have met the

interchange requirements, the frequency of testing shall be further decreased to one lot tested of each three lots produced. If rejection of a lot occurs at any time, a failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2), and the frequency of testing shall increase to the previous level successfully completed. After interchange of parts, the 10 machine guns shall be tested for the following:

- a. Firing Pin Protrusion per paragraph 3.3.10, measured in accordance with 4.5.3.
- b. Headspace per paragraph 3.3.9, measured in accordance with 4.5.1.
- c. Trigger Pull per paragraph 3.4.1, tested in accordance with 4.5.2.
- d. Extractor clearance and engagement verified/ measured in accordance with 3.3.2.2.
- e. Functioning per paragraph 3.4.3, tested in accordance with 4.5.5.
- f. Rate of Fire Position #1 per paragraph 3.4.3, tested in accordance with 4.5.5.
- g. Rate of Fire Position #3 per paragraph 3.4.3, tested in accordance with 4.5.5.
- h. Accuracy and Dispersion per paragraph 3.4.3.2, tested in accordance with 4.5.6.1.
- i. Targeting per para 3.4.3.3, tested in accordance with 4.5.6.2.
- j. Belt Pull per Para 3.4.3.1, tested in accordance with 4.5.5.

No failure shall be allowed. Failure of the interchangeability test shall cause retest or rejection of the represented lot. If rejection of a lot occurs at any time, a failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2). At the discretion of the Government, an interchangeability retest may be allowed without reconditioning the lot of machine guns. Failure in the retest shall cause rejection of the represented lot subject to reconditioning and the further test as a reconditioned lot. A sample of 20 machine guns from each retest or reconditioned lot shall be tested using the same procedure described above.

4.4.3.8.2 Concurrent Repair Parts. At least two parts from each inspection lot of concurrent repair parts shall be subjected to the interchangeability test specified in 4.5.8. Failure of any part to meet the requirements shall be cause for rejection of the represented lot subject to reconditioning. If rejection of a lot occurs at any time, a failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2), and further testing shall be as a reconditioned lot. A sample of double the number of parts used in the original test shall be tested from each reconditioned lot using the test method specified in 4.5.8.

4.4.3.9 Reliability. As specified in the contract three machine guns randomly selected by the Government shall be each tested to 50,000 rounds using the test method specified in 4.5.9. Failure of the machine guns to meet, collectively, the MRBS and MRBF requirements shall be cause for deferment of acceptance of product, both finished items and items in process. In addition the contractor shall provide corrective action to any items already delivered deemed applicable by the government QAR. A failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2). The contractor shall furnish the following spare and repair parts to support this reliability test:

<u>PART NOMENCLATURE</u>	<u>PART NUMBER</u>	<u>QUANTITY</u>	<u>UNIT OF ISSUE</u>
PIN, SPRING ASSEMBLY PIN, AXIS, TRAY AND COVER	11826277	3	EACH
ROD ASSEMBLY, DRIVE SPRING	11826024	4	EACH
PIN, SPRING ASSEMBLY	11826160	4	EACH
BARREL, GUN	12976818	1	EACH
SCREW, FRONT SIGHT	12597043	6	EACH
ADAPTER, BARREL	11826001	2	EACH
CARRYING HANDLE ASSEMBLY	12976819	2	EACH
SPRING, BARREL BRACKET	12976827	2	EACH
CATCH, BARREL BRACKET	12976828	2	EACH
PLUG, GAS REGULATOR	11826003	2	EACH
BLADE, FRONT SIGHT	12597040-2	6	EACH
PIN, SPRING	12976829	2	EACH
HANDLE ASSEMBLY, COCKING	12976835	3	EACH
PIN, SPRING (BIPOD LATCH)	12976850	2	EACH
PIN, STRAIGHT HEADED	11826137	5	EACH
PIN, SPRING	MS16562-106	5	EACH
BUFFER, HYDRAULIC	12988988	1	EACH

PIN, SPRING LOADED	11826054	2	EACH
PIN, FIRING	11826065	3	EACH
PIN, SPRING	11826068-1	4	EACH
ROD, OPERATING	12976867	1	EACH
BOLT, BREECH BODY	11826040	1	EACH
EXTRACTOR, CARTRIDGE	11826060	1	EACH
PLUNGER, EXTRACTOR	11826061	3	EACH
SPRING, EXTRACTOR ASSEMBLY	11826062	3	EACH
SPRING, EJECTOR	11826069	4	EACH
PIN, SPRING	11826068-3	4	EACH
PIN, PAWL RETAINING	11826205	4	EACH
RING, RETAINING	11826200	5	EACH
PAWL, FEED ASSEMBLY	11826177	1	EACH
SPRING, HELICAL	11826201	4	EACH
SPRING, HELICAL	11826189	4	EACH
SPRING, HELICAL	11826182	4	EACH
PIN, LOCK	11826202	4	EACH
CLIP, SPRING, FEED LEVER	11826204	2	EACH
GUIDE, CARTRIDGE REAR	11826207	2	EACH
GUIDE, CARTRIDGE FRONT	11826208	1	EACH
SPRING, TORSION SEAR	11826254	3	EACH
SPRING, BARREL LATCH	11826131	1	EACH
LATCH ASSEMBLY, BARREL	12997500	1	EACH
PIN, GROOVED HEAD	11826130	1	EACH

4.4.4 Inspection Equipment. The inspection equipment required to perform the examinations and tests prescribed herein is described in the applicable paragraphs. The contractor shall submit for approval inspection equipment designs in accordance with the terms of the contract.

4.5 Methods Of Inspection.

4.5.1 Headspace Test. Each machine gun with both its component barrel assembly and spare barrel assembly shall be gaged for minimum headspace and maximum headspace requirements (see 3.3.9) after proof firing, prior to acceptance, using gage number 11826302 for minimum and gage number 11826303 for maximum measurements.

4.5.2 Trigger Pull Test. Place the machine gun in an unloaded firing mode. Apply masses gradually to the center of the trigger bow in a rearward direction parallel to the barrel. For acceptance, applying the minimum mass will not fire the machine gun and applying the maximum mass will fire the machine gun.

4.5.3 Firing Pin Protrusion Test. The firing pin protrusion shall be gaged for compliance using gage number 11826304.

4.5.4 High Pressure Resistance Test. Fire one M60 High Pressure Test Cartridge in each gun barrel, bolt assembly, and receiver assembly. After firing, apply magnetic particle inspection to these parts and examine these components for cracks, deformations and other evidence of damage. After firing, also examine cartridge cases from barrel assemblies for bulges, splits, rings, and other indications of defective barrels. Determine that specific scratches and marks, if present in the chamber which meets surface texture requirements, have not caused marks on the cartridge case.

4.5.5 Functioning Test. Testing for functioning and belt pull requirements of 3.4.3 and 3.4.3.1 shall be accomplished on a government approved firing fixture. Each weapon shall be sequentially tested for rate of fire first, then accuracy, dispersion and targeting (para 4.5.6) and finally belt pull (4.5.5).

a) Firing for cyclic rate measurement shall be accomplished sequentially at gas regulator plug positions #3 and #1 for the assigned and spare barrel. Twenty round link belts are used to obtain cyclic rates. With the assigned barrel, fire a 20 round continuous burst at gas position #3 and determine the cyclic rate over the 20 rounds. Change from the assigned barrel to the spare barrel and repeat firing the machine gun at gas position #3 for cyclic rate. Set the gas regulator plug at position #1. Fire 20 rounds in one continuous burst and measure the cyclic rate. Repeat the cyclic rate firings with the assigned and spare barrel at gas position #1.

b) The weapon will then be tested for the accuracy and dispersion requirements of paragraph 3.4.3.2, and the targeting requirements of paragraph 3.4.3.3 using the method specified in paragraph 4.5.6.

c) The weapon will then be tested for belt pull. Five linked dummy rounds are attached to the end of one 20 round belt forming a 25 round belt. Mounted in a government approved firing fixture similar to that shown in FIGURE 1, the weapon is loaded with the 25 round belt. A 4.5 kg weight shall be attached to the end of the belt and be allowed to hang unsupported vertically. The gas regulator plug is set at position #1 and the 20 rounds (with 5 dummy rounds and weight attached) are fired in interrupted bursts with at least three interruptions. Visually examine the firing operation to determine that the weapon is controlled by the trigger and that every spent cartridge is properly ejected. Refire the cyclic rate of fire test at gas position #1 or #3 if the cyclic rate of fire requirement was not met. Refire the belt pull test if requirement was not met. Only one refire per requirement is allowed.

d) Failure to meet the cyclic rate requirements at gas position #1 or #3 or the occurrence of any malfunction during cyclic rate testing or at gas position #1 for belt pull shall be cause to reject the machine gun. Subsequent retests will then be performed in accordance with the procedure outlined. During retests, the accuracy test will not be repeated if the accuracy requirement was met by prior function firing.

4.5.5.1 **M4 Bandoleer Firing.** The function testing from paragraph 4.5.5 shall be accomplished with the M4 Bandoleer and ammunition adapter assembly attached, except for the belt pull testing. Belt pull testing may be accomplished without the bandoleer attached if it conflicts with the approved firing fixture.

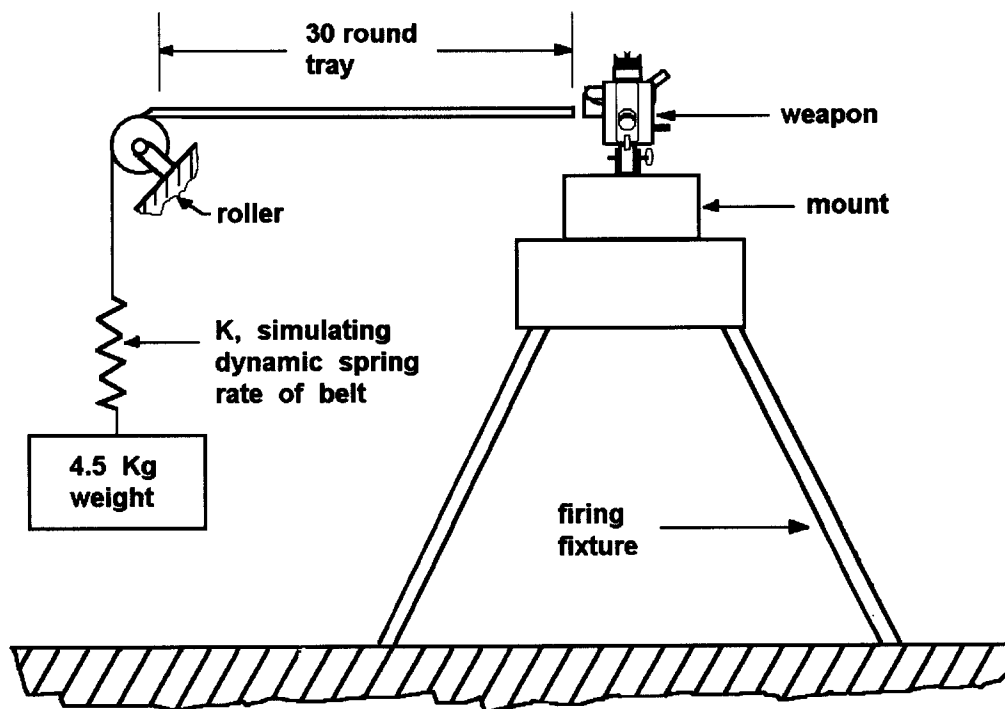


FIGURE 1. Firing Fixture For Testing

4.5.6 Accuracy, Dispersion and Targeting Test.

4.5.6.1 **Accuracy and Dispersion Test.** From a Government approved firing fixture (FIGURE 1), the machine gun, loaded with its assigned barrel with a 10 round link belt, is fired in one continuous burst at a fixed target 100 meters away. The target shall be checked to assure that the extreme spread of the 10 shot group does not exceed the requirement in paragraph 3.4.3.2. Location of the shot hole shall be determined by its center. Without adjustment to the weapon or fixture, the assigned barrel is replaced by the spare barrel and a second 10 round continuous burst is fired at a target at 100 meters. The extreme spread of the second 10 shot group shall not exceed the requirement. In addition the mean points of impact of both barrels shall be within requirement. A maximum of three warming shots are allowed per barrel prior to firing for record. All firing shall be performed with the gas regulator plug set at the #1 position. Prior to firing, the weapon with assigned barrel shall be aligned with the 100 meter point of aim by visually bore sighting the machine gun or use of a bore-sighting device.

4.5.6.2 Targeting Test. Targeting of this machine gun shall be done in conjunction with the 100 meter precision test. With the rear sight of the machine gun set at minimum elevation (200 meters), the front sight blade set at the low point of elevation and midpoint of windage, and the sights aligned at 6 o'clock on the sighting image (33 centimeter bull) (see FIGURE 2), three (3) sighting shots shall be fired and the front sight adjusted to bring the mean point of impact of a ten (10) round burst from the assigned barrel to approximately the theoretical point of impact 10 centimeters above the actual point of aim. The assigned barrel assembly will then be replaced by the spare barrel assembly and with a 6 o'clock hold on the sighting image, the three (3) sighting shots shall be fired and the front sight adjusted to bring the two barrels within the targeting requirements with the same rear sight setting. The ten round continuous burst shall be fired and extreme spread and mean point of impact determined for comparison to the requirements for both barrels. Starting with a No. 1 blade, adjustment of the front sight blade and protector may be made using the front sight combination tool to meet the targeting requirement (3.4.3.3). If the required elevation correction can not be obtained with the No. 1 blade screwed to the maximum elevation, it must be replaced with the blade marked No. 2 (see TABLE I). The No. 2 blade must be screwed fully home, then raised by two complete turns to reach approximately the same mean point of impact as the No. 1 blade. If either blade is at its maximum, the base of the blade is flush with the flat part of the front sight protector. Adjustment of the front sight shall not cause overhang of the front sight protector over the front sight collar beyond 1.5 mm (See TABLE II).

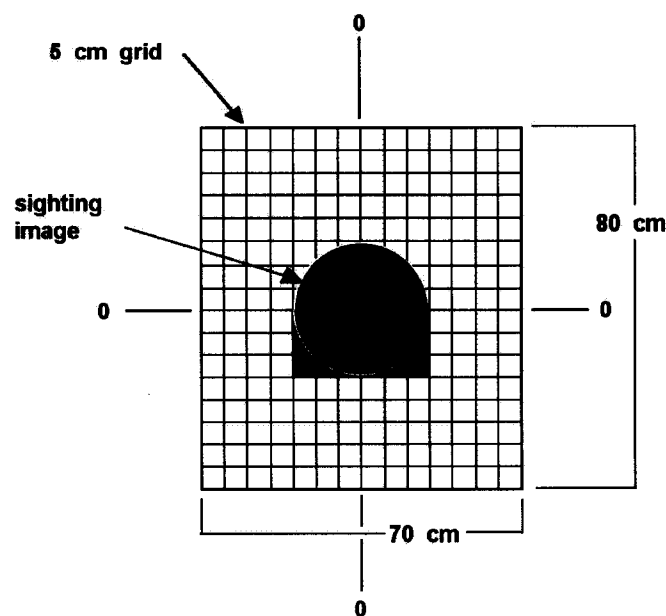


FIGURE 2. Targeting Diagram

TABLE I - Elevation adjustment of front sight blade (No. 1 or 2), in centimeters (cm)

Turns	50 meters	100 meters	200 meters
1/2 turn	2.7 cm	5.4 cm	10.8 cm
1 turn	5.4 cm	10.8 cm	21.6 cm

TABLE II - Windage Adjustment Of Front Sight In Centimeters (cm)

Number Of Clicks	50 Meters	100 Meters	200 Meters
1	0.5 cm	1.0 cm	2.0 cm
2	1.0 cm	2.0 cm	4.0 cm
4 or 1/2 turn	2.0 cm	4.0 cm	8.0 cm
8 or 1 turn	4.0 cm	8.0 cm	16.0 cm

4.5.7 Endurance Test. The machine gun shall be fired 15,000 rounds in 200 round complements, alternating between assigned and spare barrel. Barrels may be compressed air cooled to ambient temperature after each complement. Each complement should be fired in short bursts (10-12) at a rate of one burst every 6-8 seconds. The gas regulator plug shall be set at position #1. The machine guns are lubricated every 2,000 rounds and completely cleaned, inspected, and lubricated after every 4,000 rounds. Firing is from a Government approved firing fixture. If the endurance requirements are not met, the represented lot shall be rejected subject to retest or reconditioning and further test as a reconditioned lot. An endurance retest of two other machine guns from the same lot shall be made without reconditioning the represented lot, unless in the opinion of the Government representative the failure indicates serious defects in the item, in which case retest shall be made only when authorized by the procuring agency. Failure of either machine gun in the retest to meet the requirements shall cause rejection of the represented lot subject to reconditioning and further testing as a reconditioned lot. Prior to submission of a lot of machine guns as a reconditioned lot, a failure analysis shall be performed and the proposed corrective action shall be submitted to the government QAR for review and approval (See 4.1.2). Sample size and test methods for reconditioned lots shall be the same as for retest.

4.5.8 Interchange Of Parts.

4.5.8.1 Machine Guns. Machine guns shall be tested by disassembling and then reassembling parts using the parts and prearranged system prescribed below in TABLE III. Interchange of parts shall be accomplished by dividing the parts of each machine gun into 10 groups of nonmating parts as shown below and distributing the groups into 10 different trays until each tray contains a complete machine gun. Groups of nonmating parts from machine gun number 1 shall be taken in order and placed in trays 1 through 10; groups of parts from machine gun number 2 shall be taken in order and placed in trays 2 through 10 to 1; groups of parts from machine gun number 3 shall be taken in order in and placed in trays 3 through 10 to 2; etc. Commercial parts such as screws,, nuts, washers, and pins shall be placed in the same tray as their mating or associated part. Any commercial part rendered unserviceable by disassembly shall be replaced without penalty to the interchangeability test. The machine gun shall be reassembled using only those parts which are in the same tray.

4.5.8.2 Concurrent repair parts. Concurrent repair parts shall be tested by disassembling two machine guns, previously tested in 4.4.3.8, as necessary and then reassembling them using concurrent repair parts. The machine guns shall operate and function properly. This test may be performed independently of the machine gun interchangeability test specified in 4.4.3.8, and at more frequent intervals using accepted machine guns taken from production.

4.5.9 Reliability test.

4.5.9.1 Sample. A sample of five weapons shall be test fired for a total of 7500 rounds each. At that point, the reliability will be calculated (point estimate of MRBS) for each weapon. The samples with the lowest and highest MRBS for each type will be set aside and testing will continue with the three remaining samples. The remaining sample of three will be fired for a total of 50,000 rounds each.

4.5.9.2 Firing schedules. Unless otherwise specified, the firing will be conducted in 200 round complements, alternating between firing schedules No.1 and 2 each for a complete complement of 200 rounds. With the weapon mounted on the tripod, the belts will feed from an ammunition can positioned below the weapon. For bipod use, the ammunition will feed from the ammunition adaptor assembly secured to the weapon.

4.5.9.2.1 Schedule No.1. 10 round burst at a rate of one burst every 6 seconds for 200 rounds.

4.5.9.2.2 Schedule No.2. 25 round burst at a rate of one burst every 15 seconds for 200 rounds.

4.5.9.3 Maintenance. The weapons will be cleaned, inspected and lubricated at 4000 round intervals and relubricated at 2000 round intervals. Two barrel assemblies will be used, alternately, in 200 round cycles. The barrels will be forced-air cooled after each 200 rounds and the receiver will be forced-air cooled after each 400 rounds:

4.5.9.4 Mounts. Throughout the test, a variety of mounts or firing positions will be utilized. Unless otherwise noted, the first 20,000 rounds will be fired from the M122A1 Tripod followed by 10,000 rounds on the integral weapon bipod, and then followed by a repeat of the same sequence. The tripod will be the standard M122A1 Tripod. The tripod will be seated in a sandbox and secured with sandbags. The bipod will be the integral bipod assembled to the weapon. The bipod legs will be seated in a sandbox,

unsecured. The sandbox will contain a sand/dirt mixture compacted to 150 + 50 psi, as measured with a cone penetrometer.

4.5.9.5 Barrel life. Each barrel shall be fired for a total of 15,000 rounds (see requirements of 3.4.3.5) and then replaced. If the barrel is still serviceable at 15,000 rounds, firing may continue at a later date, with serviceability checks at 2,000 round intervals, until failure. At the start of the test and during the last 50 rounds of each of the final 200 round complements for each barrel, cyclic rate (gas port setting # 1 & # 3), dispersion, and projectile velocity will be measured and evidence of yaw or keyholing determined. The cyclic rate-of-fire will be recorded over a 20 round burst. The dispersion, projectile velocity and yaw will be measured from the firing of a 10 round burst. The dispersion target will be placed 100 meters from the muzzle. Projectile velocities will be measured at a point 5 meters forward of the muzzle. The yaw or keyholing will be recorded on a target 25 meters from the muzzle. Firing will be from a test stand adapted for the weapon.

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Table III – PARTS INTERCHANGE TABLE

GROUP I

1.	BARREL GUN, (W/FLASH SUPPRESSOR ATTACHED)	12597036 (12976830 Attached)
2.	PIN, SPRING, TUBULAR, SLOTTED	12976829 (REPLACE)
3.	COVER, FRAME WITH ROLLERS	12977102
4.	PIN, SPRING	MS16562-105 (REPLACE)
5.	PIN, STRAIGHT, HEADLESS	11826250
6.	ROD ASSEMBLY, DRIVING SPRING	11826024
7.	RING, SLING	12976847
8.	PIN SPRING	MS39036-205 (REPLACE)
9.	COVER, EJECTION PORT, ASSEMBLY	12976843
10.	CATCH, RETAINING BIPOD	12976848
11.	WASHER, PIN, AXIS LEGS	12976908
12.	PIN SPRING	12976904 (REPLACE)
13.	WASHER, LOCK, FLAT, EXT. TOOTH (6 EACH)	ASME B 18.21.1, #10 (REPLACE)

GROUP II

1.	CATCH, BARREL, BRACKET	12976828
2.	PIN, STRAIGHT, HEADED	11826216
3.	PIN, STRAIGHT CATCH STOP	MS171475 (REPLACE)
4.	PLUNGER, DETENT BUFFER CATCH	11826215
5.	TRAY, FEED	11826006
6.	PIN, STRAIGHT HEADED	11826137
7.	PROTECTOR, FRONT SIGHT	12597039
8.	BUTTSTOCK ASSEMBLY	12976852
9.	LEG, RIGHT, COMPLETE	12976884
10.	NUT, PIN AXIS, LEGS, BIPOD	12976907

GROUP III

1.	BRACKET CARRYING HANDLE	12976823
2.	BUFFER , HYDRAULIC	12988988
3.	PIN, AXIS, TRAY AND COVER	11826277
4.	PIN, SPRING, TRIGGER	11826160
5.	ROD ASSEMBLY, OPERATING	12976867
6.	GUIDE, CARTRIDGE, REAR	11826207
7.	PLUNGER, DETENT	11826156
8.	BLADE, FRONT SIGHT	12597040
9.	PLUNGER, REAR SIGHT	12597055
10.	HEAD, BIPOD	12976900
11.	LEG, LEFT, COMPLETE	12976894
12.	SPRING, PLUNGER, BIPOD	12976899
13.	PIN, SPRING, TUBULAR, COILED, HD	MS39086-91 (REPLACE)

GROUP IV

1.	SPRING, HELICAL COMPRESSION	11826214
2.	GRIP, MACHINE GUN, LEFT	12976881
3.	SEAR	12976882
4.	SLIDE, CHARGER	12976835
5.	ADAPTER, BARREL	11826001
6.	STRAP, RETAINING, FRONT SIGHT	12597041
7.	SPRING, HINGE PIN, EJECTION PORT	12976844
8.	HEAD, HINGE BODY, BIPOD	12976902
9.	SPRING, LEGS, BIPOD	12976905
10.	BUTTON, LATCH	12997499
11.	BUFFER HOUSING	12988989

GROUP V

1.	PIN, SPRING LOADED	11826054
2.	PIN, FIRING	11826065
3.	PIN, PAWL RETAINING	11826205
4.	GUIDE, CARTRIDGE FRONT	11826208
5.	CLIP, RETAINING	11826204
6.	GRIP, MACHINE GUN RIGHT	12976879
7.	SPRING, HELICAL, TORSION, SEAR	11826254
8.	LATCH, BARREL	12997498
9.	SPRING, ADJUSTING, FRONT SIGHT	12597042
10.	LEAF, REAR SIGHT	12597047
11.	PIN, NUT RETAINING, HANDLE	MS 9226-04 (REPLACE)
12.	PIN, AXIS, LEGS, BIPOD	12976897

GROUP VI

1.	PIN, SPRING	11826068-1 (REPLACE)
2.	BOLT, BREECH BODY	11826040
3.	TRIGGER ASSEMBLY	12976870
4.	PAWL, FEED ASSEMBLY	11826177
5.	CLIP, SPRING TENSION, FEED LEVER	11826202
6.	CLIP, RETAINING CATCH	11826203
7.	LATCH, BACK PLATE	12976861
8.	SCREW, ADJUSTING, FRONT SIGHT	12597043
9.	SCREW, STOP, REAR SIGHT LEAF	12597053
10.	HANDLE, CARRYING	12976820
11.	CYLINDER, ACTUATING, BIPOD	12976903
12.	SCREW, CAP (6 EACH)	NAS 1351N-3-9B

GROUP VII

1.	HOUSING, TRIGGER	12976876
2.	RING, RETAINING	11826200
3.	LATCH, COVER (2 EACH)	11826206
4.	LEVER, FEED (R.H.)	11826209
5.	BOLT, MACHINE, HEX HD, SCR STOCK	12976880
6.	SPRING, HELICAL, COMPRESSION DETENT PLUNGER	11826158
7.	EJECTOR, CARTRIDGE	11826067
8.	SPRING, HELICAL, COMPRESSION	11826201
9.	SPRING HELICAL, COMPRESSION	12597054
10.	SPRING, BIPOD, RETAINER, CATCH	12976849
11.	PLUNGER, RETAINING, BIPOD	12976901
12.	SCREW, SECURING BUTTSTOCK	12988985

GROUP VIII

1.	COVER, ACCESS FRONT	11826122
2.	PIN, GROOVED HEAD	11826130
3.	PIN, SPRING PLUNGER	11826068-2 (REPLACE)
4.	PLUNGER, EXTRACTOR	11826061
5.	EXTRACTOR, CARTRIDGE	11826060
6.	PLUG, GAS REGULATOR	11826003
7.	GUARD, TRIGGER	12976875
8.	PIN, SPRING, BIPOD RETAINER	12976850 (REPLACE)
9.	PLUNGER, CATCH, EJECTION PORT	12976845

GROUP IX

1.	SPRING, HELICAL COMP, BARREL LATCH	11826131
2.	SPRING, EXTRACTOR ASSEMBLY	11826062
3.	SPRING, HELICAL, COMP, EJECTOR	11826069
4.	PIN, STRAIGHT, HEADLESS	12597056 (REPLACE AND RESTAKE)
5.	PIN, HEADED, TRIGGER GUARD	12976874
6.	BUSHING, RETAINING HEAD, PLUNGER	12976898
7.	ADAPTER ASSEMBLY, AMMUNITION	12976909
8.	RAIL (2 EACH)	12997574
9.	SCREW, BUTTSTOCK (2 each)	12976864

GROUP X

1.	RECEIVER ASSEMBLY	11826080
2.	SAFETY, SMALL ARMS	11826258
3.	COLLAR, GAS REGULATOR	11825992
4.	PIN, SPRING, STEEL, PHOSPHATE FINISH	11826068-3 (REPLACE)
5.	PIN, STRAIGHT, HEADLESS	11826255
6.	SLIDE ASSEMBLY, REAR SIGHT	12597048
7.	NUT, RETAINING HANDLE	12976821
8.	PLATE, BUTTSTOCK	12976863
9.	HEATSHIELD ASSEMBLY	12976831
10.	RING, AXIS PIN LEG	12976906
11.	INSULATOR (6 EACH)	12997575

4.5.9.6 Serviceability. A barrel is considered unserviceable when: (1) 20 percent of any burst exhibits yaw of 15 degrees or more, or (2) the mean projectile velocity of a burst drops 200 feet per second (ft/s) below the mean of the velocity initially recorded at the start of the test. Barrels failing to meet the minimum life criteria will be considered failures for the reliability computations.

4.5.9.7 Nondestructive Testing. The nondestructive testing (NDT) inspections for discontinuities indicative of cracks or other defects will be repeated on the key components, at intervals of 28,000 and 50,000 rounds on the weapons. Key components will include, but will not be limited to, the receiver, barrels, bolt, and operating rod.

4.5.9.8 Test Data.

4.5.9.8.1 The following test data are required:

- a. Weapon type and ammunition lot number.
- b. All test incidents, categorized by class.
- c. Velocity and dispersion data for each 10,000 round gun cycle.
- d. Part life by round count, weapon number, weapon life, and part succession.
- e. NDT results.

f. Cyclic rate of fire (gas ports # 1 & # 3), headspace, trigger pull, and firing pin indent measurements for each 10,000 round gun cycle.

4.5.9.8.2 Data Analysis/ Procedure. Using standard statistical procedures, the point estimate and lower 80 and 90 percent confidence level of MRBS and MRBF will be defined for each incident class and the total incident count.

4.6 Testing Stipulations.

4.6.1 Mounts. All firing tests shall be accomplished with the machine guns affixed to a Government approved mount, or with the integral bipod, or using the M122A1 Tripod mount depending on the testing conducted.

4.6.2 Ammunition. All firing tests shall use cartridge, 7.62mm Ball: M80, per MIL-C-46931 except the high pressure test which shall use cartridge, 7.62mm, Test, High Pressure: M60, per MIL-C-46477. Dummy Cartridge, 7.62mm, Inert Loaded: M172 shall be used in the belt pull testing and any other test requiring separation of live ammunition from the machine gun. All firing tests requiring linked ammunition shall be linked with Link, Cartridge, Metallic Belt, 7.62mm: M13 per MIL-L-45403.

5.0 PACKAGING

5.1 Preservation. Preservation, packaging, packing and marking shall be in accordance with Special Packaging Instruction SPI 12976814.

5.1.1 Volatile Corrosion Inhibitors. Volatile corrosion inhibitors shall be in accordance with MIL-I-8574.

5.2 Pilot pack. Pilot pack is required for production quantities.